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Notified in
Army Orders for
October
1937



Small Arms Training

Volume I, Pamphlet No. 5

Anti-Tank Rifle 1937

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LONDON

PUBLISHED BY HIS MAJESTY'S STATIONERY OFFICE

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By Command of the Army Council,

H. J. Creed
J. J.

THE WAR OFFICE,
 31st October, 1937.

GENERAL

1. The tactical employment of the anti-tank rifle is referred to in Infantry Training, 1937. Sections 6, 56, 70, 76 and 79 should be read in conjunction with this pamphlet.

The anti-tank rifle affords a means of protection against enemy light-armoured fighting vehicles. Its bullet will penetrate their armour up to about 500 yards range and inflict casualties on the crew, although it may not seriously damage the vehicle itself. A trained soldier can produce a rate of fire of about nine rounds a minute. It is essentially a weapon of surprise.

2. Its chief characteristics are :—

- i. A single shot, hand-operated weapon with a simple bolt action.
- ii. Great accuracy and good penetration.
- iii. Comparative lightness and mobility.
- iv. When fired, it has a pronounced flash and muzzle blast.

3. General description :—

- i. Weight 36 lb.
- Calibre55-in.
- Weight of magazine
containing 5 rounds 2 lb. 7 oz.
- Total length 5 ft. 4 in.

ii. *Recoil*.—This is considerable, but a recoil reducer, together with a strong buffer spring and padded shoulder piece, reduces the shock of discharge on the firer's shoulder.

iii. *Mechanism*.—This is similar to that of the service rifle.

4. *Carriage*.—In the infantry the anti-tank rifle with its ammunition is carried on the platoon truck, or corresponding vehicle, until required for use. It can be man-handled by one individual for short distances only.

In the attack it may, however, be necessary to man-handle the anti-tank rifles of certain platoons for some distance so

that they will be immediately available during the advance to repel possible attacks by armoured fighting vehicles, and on the objective for consolidation purposes.

In such circumstances the platoon commander must arrange reliefs for carrying the rifle; or, alternatively, arrange for the rifle (and some ammunition) to be carried by two men.

5. Training.—There are so many similarities between the anti-tank rifle and existing weapons that a trained soldier should be capable of handling it with a small amount of instruction. Training policy should, therefore, be directed to giving practice in handling and firing the weapon at moving targets.

As the rifle has a range almost double that of the S.M.L.E., it is unsafe to fire full or reduced charge ammunition on rifle ranges, except where danger areas have been extended and passed as safe.

In order to accustom men to the effect of firing .55-inch ammunition where proper ranges are not available, a few rounds will be fired at targets, at short range, placed against the stop butt in such a manner as to avoid any possible chance of misses or ricochets. On no account will 30 yards ranges be used for this purpose.

Practice at stationary and snapshooting targets will be carried out on ordinary ranges, using an adaptation for .303-inch ammunition embodied in the anti-tank rifle.

For practice at engaging crossing tanks, a representative tank target for use with .303-inch ammunition at a range of 100 yards will be used. The size and speed of this target will be representative of a medium tank at 500 yards travelling at a speed of 15 to 25 m.p.h.

The anti-tank rifle (off-side view)

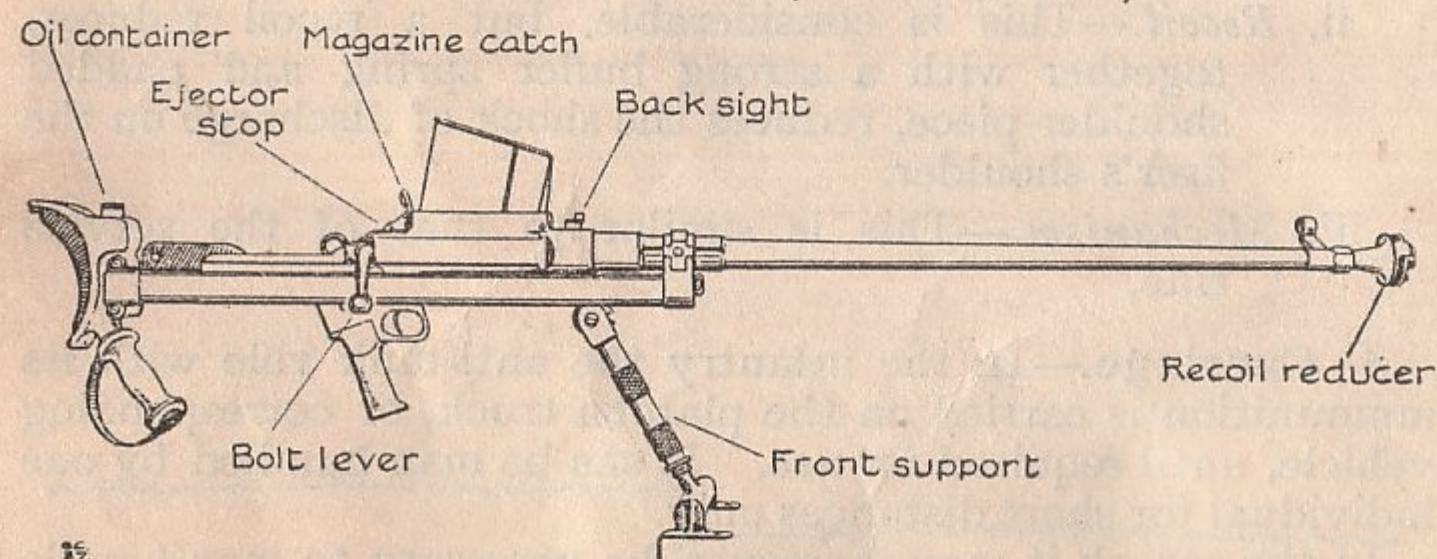


Fig. 1.

The anti-tank rifle (near-side view)

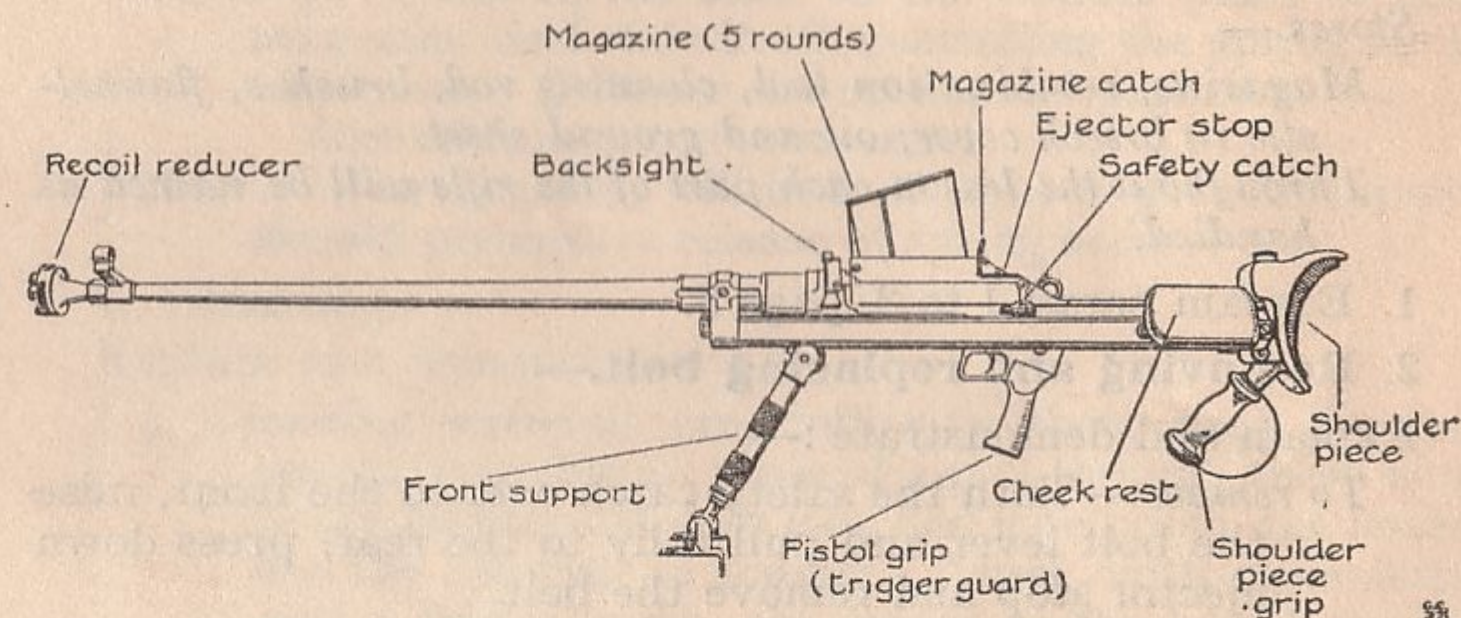


Fig. 2.

The anti-tank rifle (top view)

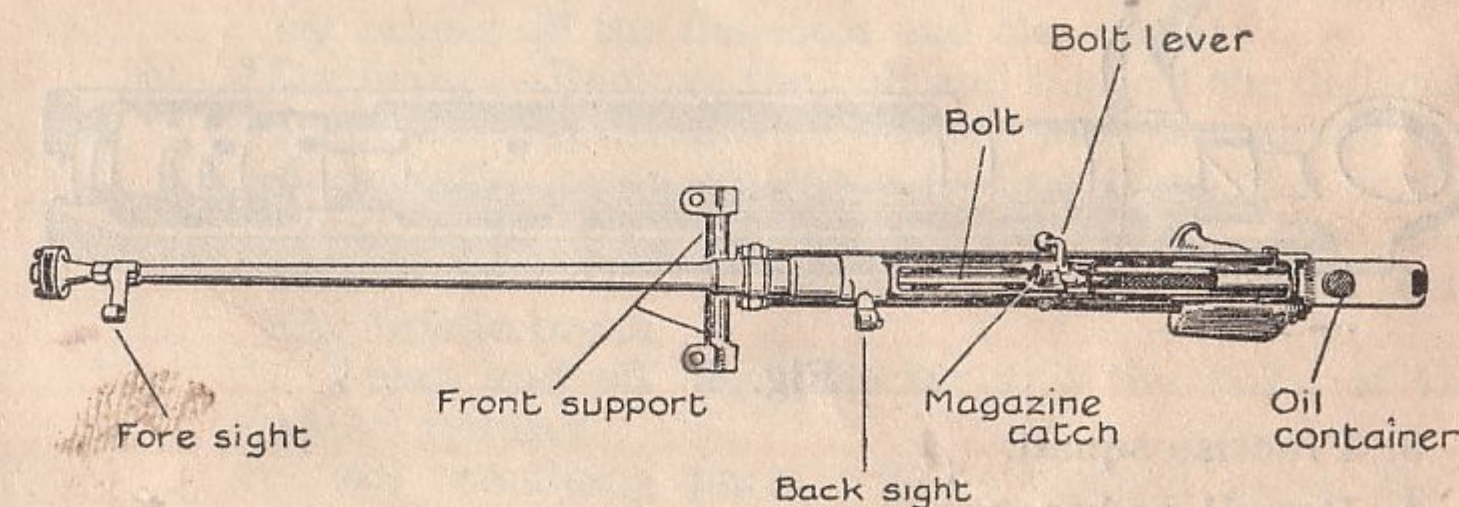


Fig. 3.

LESSON 1.—STRIPPING AND CLEANING

Instructor's Notes

Stores.—

Magazine, combination tool, cleaning rod, brushes, flannellette in breech cover, oil and ground sheet.

Throughout the lesson each part of the rifle will be named as handled.

1. Explain paras. 1 to 3, page 5.

2. Removing and replacing bolt.—

Explain and demonstrate :—

To remove.—Turn the safety catch over to the front, raise the bolt lever and pull fully to the rear, press down ejector stop and remove the bolt.

To replace.—Ensure that the ejector and extractor cover the bolt locking lugs and that the cocking piece is in line with the extractor (*i.e.* in shallow recess), and that the safety catch is forward. Insert the bolt in the bolt way, push forward, pressing down slightly on the bolt lever, and turn the bolt lever down. Press the trigger and apply the safety catch.

The bolt

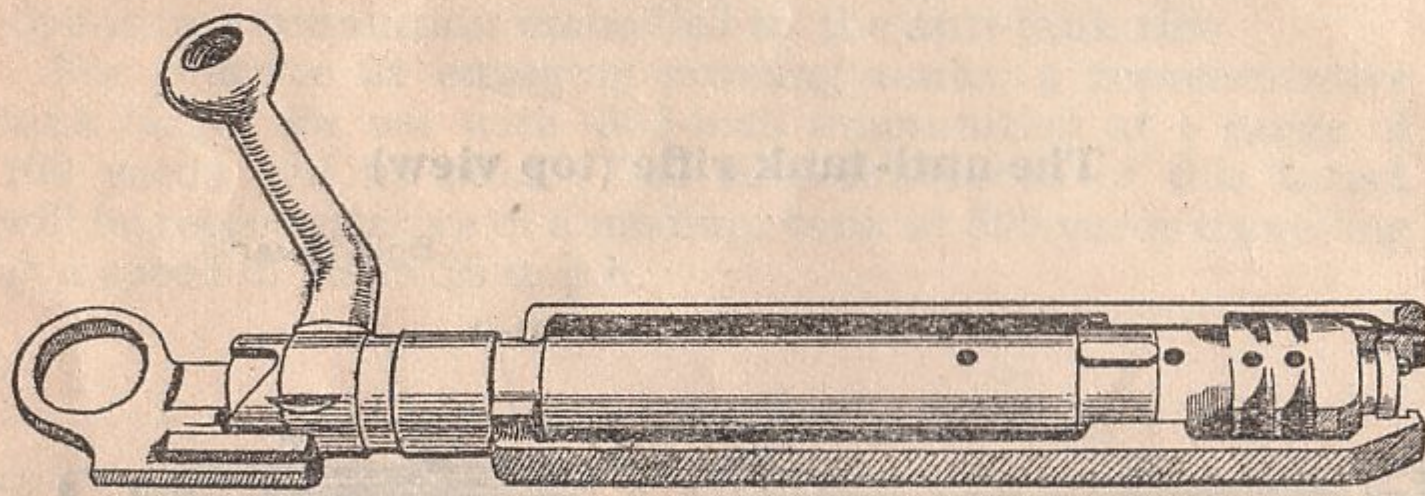


Fig. 4.

3. Practise squad.

4. Recoil reducer.—

Explain and demonstrate :—

To strip.—Using the combination tool, unscrew the three deflector screws and remove the deflector.

To assemble.—Assemble in the reverse order. Care should be taken to replace the deflector on the same flanges.

5. Practise squad in 2 and 4.

6. Magazine platform.

Explain and demonstrate :—

To strip.—Press in the stud on the bottom plate of the magazine, and slide it off, controlling the spring as it comes out. Lift out the spring and platform.

Assemble in the reverse order.

Note :—The magazine will be held so as to prevent injury should premature release of spring occur.

7. Cleaning.—

Explain and demonstrate :—

i. *Cleaning materials* are similar to those used for the service rifle, but in place of a pull-through there is a brass tubular rod with loop and wire brush, the latter for the removal of fouling. These, with flannelette and a bristle brush, are carried in the breech cover. Oil is housed in the shoulder piece. To prepare the rod for use, assemble the four sections. Pull the cord tight and secure by inserting it in the notches of the handle.

ii. *Daily cleaning.*—Remove bolt, insert a piece of dry flannelette, 4 in. by 6 in., in the loop of the rod. Insert rod in the muzzle end of the barrel and clean thoroughly, taking care to keep the rod central in the barrel. Oil the barrel, using a smaller piece of flannelette. Clean all remaining parts and leave slightly oiled.

iii. *Before firing.*—As taught for the service rifle and, in addition, wipe all trace of oil from the recoil reducer by taking off the deflector and cleaning it.

iv. *After firing.*—Remove the bolt and take off the deflector from the recoil reducer. Then, with the aid of dry flannelette, clean all loose fouling from the barrel. Next, scour out the barrel with an oily brush, and clean with dry flannelette. Clean the breech with the bristle brush.

Clean and oil the deflector and the body of the recoil reducer.

All remaining parts will be cleaned as in daily cleaning. Replace the deflector and bolt.

The outside of the magazine and magazine platform will be wiped and oiled, but not stripped. Finally oil the barrel, using flannelette.

v. *During and after gas attack.*—As for the service rifle. Question squad on this method.

vi. *Brush cover.*—Removing and replacing.

LESSON 2.—LOADING, UNLOADING, SIGHT-SETTING AND AIMING

Instructor's Notes

Stores.—

Magazines, dummies and ground sheets.

1. Filling magazines.—

Explain and demonstrate:—

- i. *The magazine.*—Holds five rounds. Inside is a platform and powerful spring. The magazine will not be stripped, except for cleaning after a gas attack, and, should it not work correctly, it should be taken to the armourer.
- ii. *To fill.*—Hold the magazine in one hand, resting it on the knee or on a solid surface. Press down the platform and insert the base of the cartridge under the magazine lips. Push the cartridge into the magazine. Continue this action until the magazine is filled.
- iii. *To empty.*—Push each round forward with the nose of a bullet and remove.

2. Practise squad.

3. Loading and unloading.—

Explain and demonstrate:—

- i. *Loading position.*—Lie down with the body straight behind the rifle; grasp the pistol grip with the right hand, forefinger outside the trigger guard and the left hand on the shoulder piece grip.
- ii. *To load.*—Turn the safety catch over to the front, put the magazine on, forward portion first. Open and close the breech as taught with the service rifle. Apply the safety catch.
- iii. *To unload.* Turn the safety catch over to the front; press the magazine catch with the palm of the hand and remove the magazine. Open and close the breech. Raise the shoulder piece into the shoulder and press the trigger. Apply the safety catch, lower the rifle and stand up.

4. Practise squad.

5. Sight setting.—

Explain that the body of the backsight is marked on the left "300", and on the right "500".

To set the backsight.

For 300 yards turn the lever to the left.

For 500 yards turn the lever to the right. The aperture is thus raised or lowered to the required height.

6. Aiming.—

Explain that the method of aiming is the same as employed with the light machine gun (see Fig. 5). Question squad on rules of aiming with the light machine gun.

Correct aim showing 1 width lead at a crossing tank

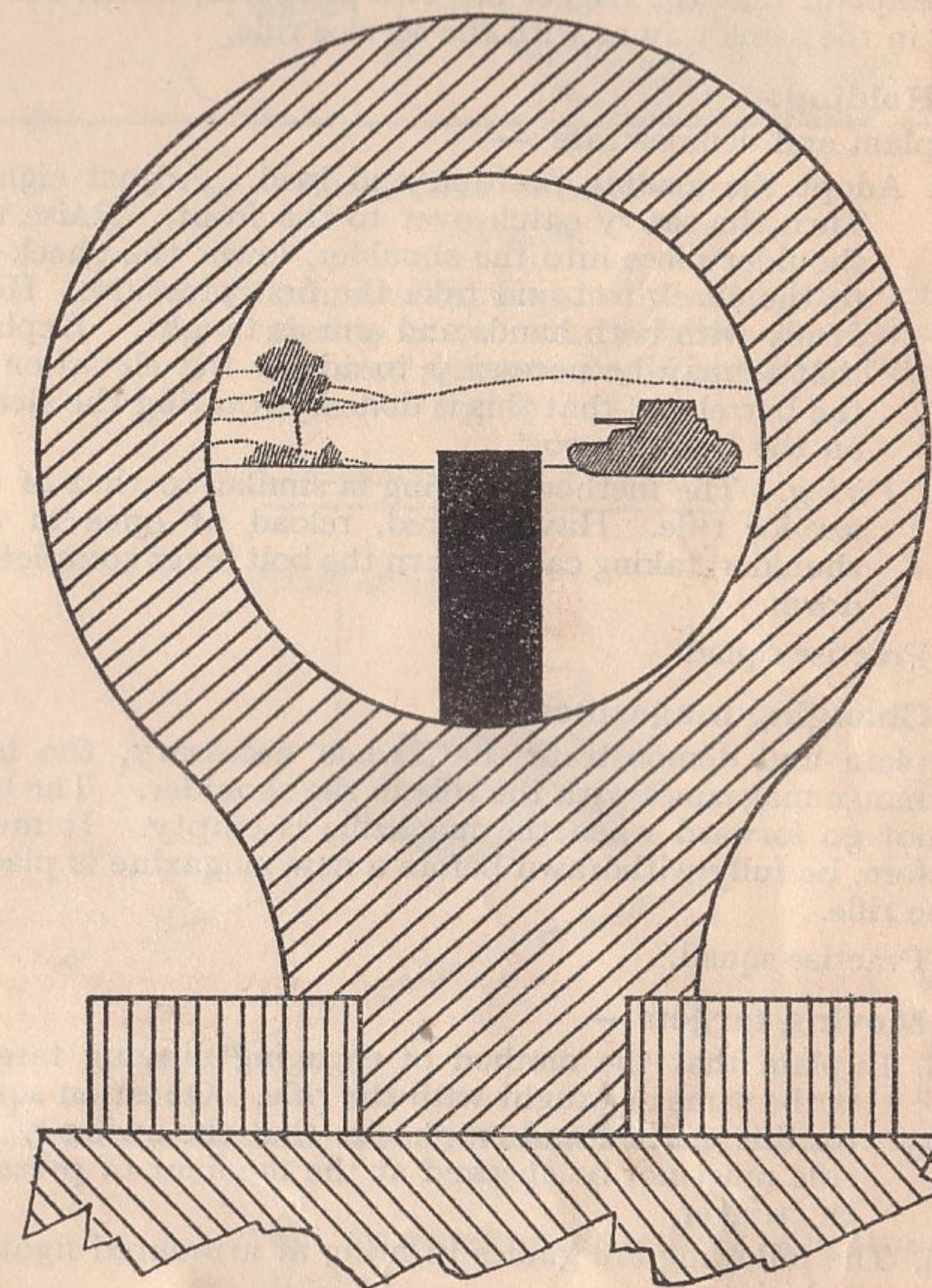


Fig. 5.

LESSON 3.—HOLDING AND FIRING

Instructor's Notes

Stores.—

Magazines and dummies.

A.F.V. targets and ground sheets.

1. Explain that the trigger has two pressures, which will be taken in the same way as with the service rifle.

2. Holding.—

Explain and demonstrate:—

i. Adopt the loading position and load. Adjust sights. Turn the safety catch over to the front. Raise the shoulder piece into the shoulder, lower the cheek on to the cheek rest and take the first pressure. Hold firmly with both hands and aim as taught. Explain that it may be necessary to adjust the elevation of the barrel and that this is done by rotating the sleeve on the front support.

ii. *Firing.*—The method of firing is similar to that of the service rifle. Having fired, reload at once in the shoulder, taking care to turn the bolt lever completely down.

3. Practise squad.

4. Changing magazines.—

Explain and demonstrate that, when necessary, the firer will change magazines with the rifle in the shoulder. The bolt will not go forward when the magazine is empty. It must, therefore, be fully withdrawn before a new magazine is placed on the rifle.

5. Practise squad.

6. Moving targets.—

i. Explain that the method of engaging moving targets is the same as taught with the rifle. Question squad on this method and emphasize that the swing of the rifle must not be checked at the moment of pressing the trigger.

ii. The following are guides in firing at armoured fighting vehicles:—

(a) When moving directly across the front, aim one width from the centre of the target (see Fig. 6).

Directly crossing

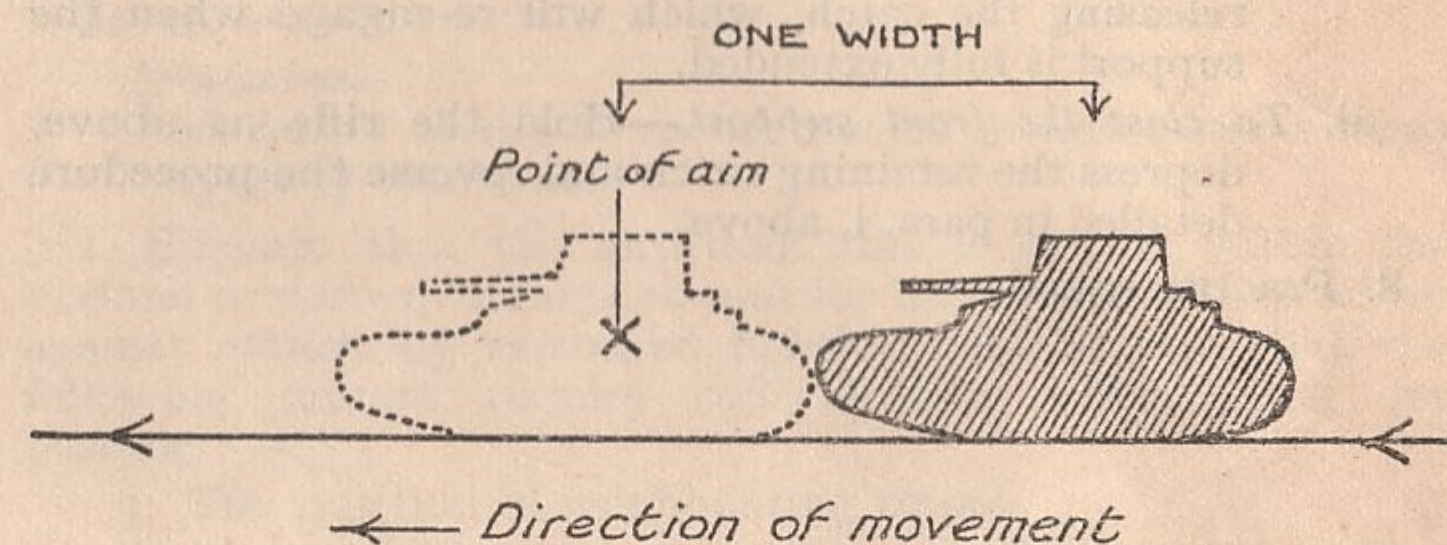


Fig. 6.

(b) When moving diagonally across the front, i.e. closing in on your position, less "lead" is required and aim should be taken at the front edge (see Fig. 7).

Diagonally crossing

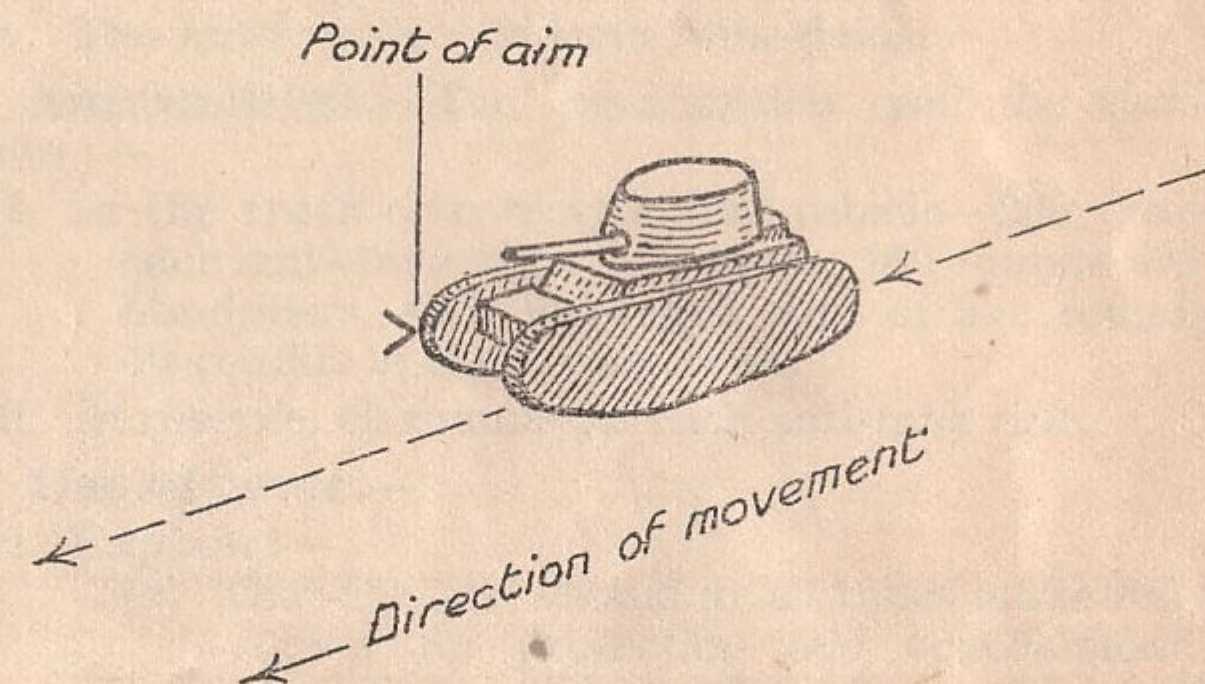


Fig. 7.

(c) When approaching or retiring, aim straight at them.

7. To set up the rifle.—

i. *To prepare the front support for use.*—With the shoulder piece on the ground, hold the barrel with

the left hand in any convenient manner. With the right hand depress the retaining catch and swing the support away from the barrel, at the same time releasing the catch, which will re-engage when the support is fully extended.

- ii. *To close the front support.*—Hold the rifle as above, depress the retaining catch and reverse the procedure detailed in para. i, above.

8. Practise squad.

LESSON 4.—HANDLING

Instructor's Notes

Stores.—

Magazines.

This lesson should be carried out on ground where various types of cover exist.

1. Explain that the anti-tank rifle is carried within the platoon or corresponding sub-unit for the purpose of protection against attack by armoured fighting vehicles and that the following factors require consideration when siting for position :—

- i. The position of neighbouring troops.
- ii. A good field of fire, if possible not less than 500 yards.
- iii. The necessity for obtaining surprise, which can only be achieved by careful concealment.
- iv. Ground which is wooded or marshy, streams which have steep sides, rocky beds and a good depth of water, form an obstacle to the movement of armoured fighting vehicles and serve to shepherd these into the more open country, which should, therefore, be covered by anti-tank fire.
- v. The location of anti-tank mine-fields.

2. **Ammunition.**—The ammunition will be carried as follows :—

- i. In the truck or corresponding vehicle—200 rounds for each anti-tank rifle. Of these, 160 rounds are in 16 bandoliers, each holding 2 clips of five rounds, and 40 rounds in eight magazines.
- ii. In reserve, 40 rounds for each anti-tank rifle.

3. **Use of cover.**—

- i. Explain :—

(a) That the firer should at all times make full use of cover for protection and concealment. His knowledge of firing the light machine gun from behind cover should be applied to the mounting and firing of the anti-tank rifle. Special attention must be given to the concealment of the muzzle on account of the flash and muzzle blast.

(b) That the position should always be examined from the point of view of the enemy. Normally, when an anti-tank rifleman has been given the arc or approaches for which he is responsible

and the approximate position from which he will fire, he should leave the rifle in the best cover and reconnoitre alternative positions for it. He should decide how it is to be mounted at each place, bearing in mind that free use of the weapon is a factor of primary importance. Unless concealment is complete, both from air and ground, the rifle should be kept under cover near at hand, and mounted only when the necessity arises.

- ii. Explain and demonstrate setting up the rifle, using various types of cover, with and without the front support, and introduce camouflage where necessary.

4. Practise squad.



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